

INSTREAM PROJECT CHECKLIST

*For Construction and Maintenance of Flood and Erosion
Protection Facilities and Habitat Restoration Projects
that may include large wood elements*

Project Name Belmondo Revetment Enhancement Project Project Manager Mason Bowles

River/River Mile/Bank Cedar/9.5 Date 11/16/11

I. Project Background and Preliminary Design (30-40 Percent) Information

(Provide general information at a conceptual level)

1. Describe the goals and objectives of the project and its relative importance to the success of DNRP program goals and mandates. (Note: If the project is comprised of emergency work, then fill out and file this form within 30 days of completion of emergency work.)

The Belmondo Revetment Enhancement Project consists of reconstructing 370 linear feet of existing streambank revetment on the left bank of the Cedar River with vegetated geogrids and four streambank enhancement structures. The primary purpose of the project is to continue and complete the bank stabilization and flood control that was initiated with the emergency repair that was performed in January 2009 and the subsequent Belmondo Revetment Repair project that was constructed in 2010. The secondary purpose of the project is to provide mitigation for impacts to aquatic habitat associated with the Cedar Rapids Levee Setback Repair project. The Project will provide bank erosion protection and enhance the quantity and quality of aquatic habitat to be consistent with state and county standards for streambank stabilization projects.

2. Describe the existing (and historic, if relevant) site and reach conditions, including structural features, channel form, and the presence of naturally-deposited large wood.

The Belmondo Reach of the Cedar River is a 1.4 miles long unconfined, aggrading and avulsing alluvial channel reach. The downstream reach is moderately confined due to the presence of near-surface bedrock. This bedrock forms a sill that contributes to the aggrading character of the Belmondo Reach. Naturally occurring large wood is occasionally present but rarely persistent due to active channel migration.

3. Describe what is known about adjacent land uses and the type, frequency, and seasonality of recreational uses in the project area. Are there nearby trail corridors, schools or parks? What is the source(s) of your information?

Adjacent land uses include undeveloped open space, residential and transportation. The Cedar River Regional Trail borders the project site and supports active and passive recreation. Water-dependent active recreation includes floating (inner tubing) and fishing.

4. Describe the conceptual design of large wood elements of the project, including, if known at this stage in the design, the amount, size, location, orientation, elevation, anchoring techniques, and type of interaction with the river and stream at a range of flows.

Four stream habitat structures are proposed including two boulder clusters and two engineered log jams (ELJs). The ELJs will include both vertical and horizontal logs. The ELJs are designed to be non-deformable structures that will promote sediment deposition, scour pools, and encourage river migration away from the left bank. These wood used in the ELJs will be chained together and ballasted with large rock to withstand flows up to the 100 year flood.

5. What is the intended function of the placed wood? What role does the placed wood have in meeting the project's goals and objectives? Is the project intended to recruit or trap additional woody debris that may be floating in the river?

The ELJs are designed to enhance the quantity and quality of aquatic habitat to be consistent with federal, state and county standards for streambank stabilization projects. The instream structures incorporate the use of boulders, large wood (LW) and rock ballasting to trap sediment, scour pools, create fish refugia, and establish riparian shade and cover. The use of LW is a requirement of the Washington State Department of Fish and Wildlife through their hydraulic project approval process.

6. Describe how public safety considerations have been incorporated into the project design [see section 1.B.2 of Ordinance 16581] and include a description of how the six (6) key steps provided in Public Rule LUD 12-1, Appendix A. (Rule) Section V.2.A. i)-vi) have been addressed.

The ELJ is designed to promote boater safety by limiting protrusions at the structure face (therefore limiting snagging), minimizing porosity (voids) of the structure, and placement of a deflector log outboard of the rootwads. The deflector log shall be set even with the rootwads behind the deflector log, and shall be a similar size to the rootwads. River user groups had the opportunity to review and comment on the structure layout and design at a public meetings held on November 15, 2011 in May Valley.

7. What is the anticipated schedule for completing project milestones (30-40% design, final design, major construction/earthmoving) and for soliciting public input)?

- SEPA comment period starts November 9, 2011
- SEPA comment period ends December 2, 2011
- Instream Project comment period ends December 2, 2011
- Complete 60% design December 2011.
- Complete 90% design January 2011
- Construction June-August 2012
- Belmondo project website: <http://www.kingcounty.gov/environment/wlr/sections-programs/river-floodplain-section/belmondo-revetment-enhancement.aspx>


Project Manager

11/17/11
Date


Supervising Engineer, Project Supervisor or Unit Manager

11/17/11
Date